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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,503	05/04/2001	Danilo Pau	851763.407	8693

500 7590 06/07/2004

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC
701 FIFTH AVE
SUITE 6300
SEATTLE, WA 98104-7092

EXAMINER

PHILIPPE, GIMS S

ART UNIT	PAPER NUMBER
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2613

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DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

for

Office Action Summary

Application No.

09/849,503

Applicant(s)

PAU ET AL.

Examiner

Gims S Philippe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-38 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 18-24 is/are rejected.
- 7) ☒ Claim(s) 8-17 and 25-34 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

This is a first action in response to application no. 09/849,503 filed on May 4th 2001 in which claims 1-38 are presented for examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, and 18-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Lam (US Patent no. 5745183).

Regarding claims 1 and 18, Lam discloses a system and process for motion estimation in video signals organized in successive frame divided into macroblocks (See Lam col. 3, lines 1-6), the process comprising a first identification phase in which, starting from a current motion vector, a best motion vector predictor is defined within a set of candidates (See Lam col. 3, lines 7-11), and a second phase of refining the best motion vector predictor thus identified, the set of candidates formed from vectors belonging to macroblocks associated

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with the current vector within the current frame and the preceding frame (See Lam col. 3, lines 56-67, and col. 4, lines 25-34).

As per claims 2-7, and 19-24, most of the limitations of these claims have been noted in the above rejection of claim 35. In addition, Lam further includes a set of candidates wherein the set includes vector homologous to the current motion vector, and vectors belonging to macroblocks located above and to the left of the current macroblock (See Lam col. 9, lines 3-14, and col. 4, lines 14-30), and the best predictor is identified, within the set, as the predictor that minimizes a residual error measurement function (See Lam col. 5, lines 61-67), and wherein the function is the sum of absolute difference function (See col. 4, lines 35-45).

3. Claims 8-17, 25-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 35-38 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or *suggest "refining the best motion by forming a grid of n points centered on a central position to which a best mode vector points, including defining the distance of the best mode vector*

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pointing to the center as a linear function of a matching error previously defined in identifying the best motion vector predictor”.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuki (US Patent no. 6563872) teaches method and apparatus for image coding.

Lee (US Patent no. 5581308) teaches method and apparatus for determining true motion vectors for selected pixels.

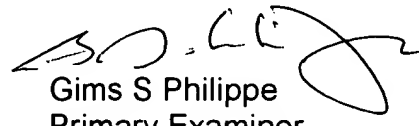
Lee (US Patent no. 566608) teaches motion vector estimation method and apparatus for use in an image signal encoding system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S Philippe whose telephone number is (703) 305-1107. The examiner can normally be reached on M-F (9:30-7:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on (703) 305-4780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gims S Philippe
Primary Examiner
Art Unit 2613

GSP

June 3, 2004